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FIT Clinical Decision Making

MULTIMODALITY IMAGING IN CORONARY ARTERY ANOMALIES

Poster Contributions
Poster Hall B1
Sunday, March 15, 2015, 9:45 a.m.-10:30 a.m.

Session Title: FIT Clinical Decision Making: Ischemic Heart Disease
Abstract Category: Acute Coronary Syndromes
Presentation Number: 1180-141

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Background: Anomalous left main coronary artery (ALMCA) arising from the right coronary artery (RCA) is a congenital anomaly with potential for sudden cardiac death.

Case: A 60-year-old man presented for evaluation a month after an inferior STEMI status post thrombolytics, managed medically at an outside institution. Coronary angiogram was deferred at the time due to renal function. History was notable for hypertension, hyperlipidemia, chronic kidney disease, and type 2 diabetes mellitus. He denied any new interim symptoms. ECG was unrevealing. Nuclear stress test demonstrated mild to moderate inferolateral scar and moderate apical lateral and mild inferolateral ischemia, with reversibility calculated at 26%. Given the findings, he proceeded to coronary angiography.

Decision Making: Coronary angiogram revealed LMCA arising from the right coronary cusp with moderate irregularity. There was moderate disease in the RCA. As the course of the left coronary system was unclear, he underwent further evaluation via coronary CTA. This demonstrated an ALMCA arising from the proximal RCA (Figure) with a transseptal (subpulmonic) course without an intramural segment. Given absence of inter-arterial course which poses the highest risk for sudden cardiac death, further optimization of medical therapy was decided.

Conclusion: ALMCA, depending on its course, carries a certain risk of sudden cardiac death. This case demonstrates the importance of multimodality imaging in defining the course of ALMCA.